

AR23

# 1969 ANNUAL REPORT

31 DECEMBER 1969



**MCDONNELL DOUGLAS**



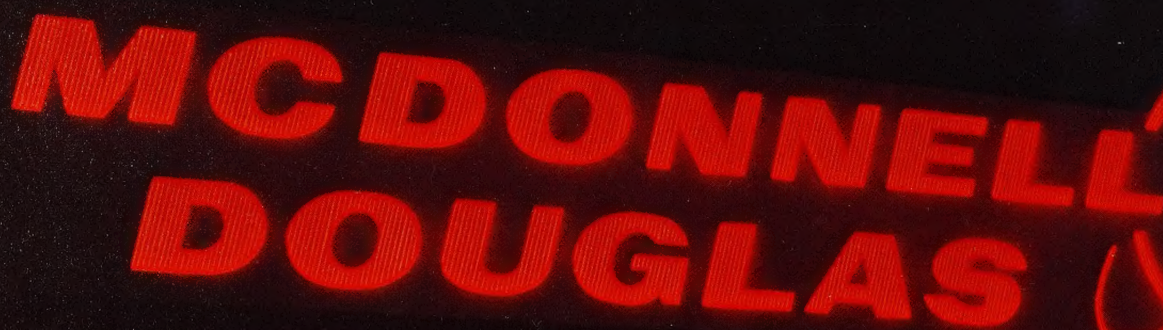
**CORPORATION**



## HIGHLIGHTS

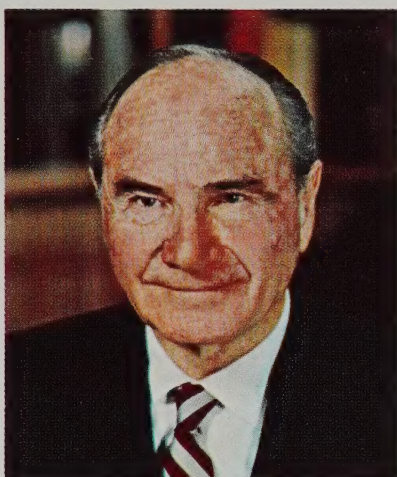
YEARS ENDED 31 DECEMBER Consolidated	1969	1968
Sales	\$3,023,829,861	\$3,609,295,227
Net earnings	\$117,645,437	\$94,724,361
As % of sales	3.89%	2.62%
Earnings per share	\$4.06	\$3.30
Cash dividends declared	\$10,985,134	\$10,873,389
Shareholders' equity per share on 31 December	\$20.81	\$16.83
Working capital on 31 December	\$160,512,017	\$138,619,787
Backlog on 31 December (See page 27*)	\$2,588,184,843	\$3,579,127,403
Personnel on 31 December	107,503	124,740

# MCDONNELL DOUGLAS



The brightly lit 9-foot letters of this new sign, whose glow reflects on the Phantom final assembly building, are visible to millions of travelers using the St. Louis airport.





**JAMES S. MCDONNELL**  
*Chairman and Chief Executive Officer*



**DAVID S. LEWIS**  
*President and Chief Operating Officer*

## **TO SHAREHOLDERS AND CO-WORKERS**

### **INTRODUCTION**

Net earnings for 1969, which top the \$100 million mark for the first time ever in the aerospace industry, are but one evidence of the strengths with which McDonnell Douglas Corporation enters a new decade of challenge. (See Highlights)

After less than three years of merged operations, our company has clearly established itself as a leader with strong capability over the entire spectrum of aerospace activities. Our advantage in having complementary resources in our various divisions has resulted in a team of singular potency and balance that enables us to be of service to a wide variety of customers. This is reflected in the more detailed report of our activities on the pages that follow, and in the healthy balance both in our 1969 sales (47 per cent commercial and 53 per cent government) and in our funded backlog on 31 December 1969 (59 per cent commercial and 41 per cent government).

The 1969 events of greatest significance for our business future were the winning of the U. S. Air Force contract to produce the F-15 air superiority fighter and our success in more than doubling the number of leading airlines that have selected the DC-10. These programs augur well for the years ahead but, as we reported on 29 July 1969, until these and other programs mature we must anticipate a decline in earnings due to lower delivery rates on the F-4 Phantom, the DC-8, the DC-9 and several other

programs. Even though reduced, the production programs of today remain substantial and provide a solid foundation of work in all divisions. Thus, barring unforeseen events, we expect McDonnell Douglas Corporation to remain on a solidly profitable basis. When the new programs under contract reach maturity and begin making important contributions to sales, higher earnings should follow.

Steadily advancing technological capability is a key element of success in the aerospace industry. Today's research and advanced engineering provide the foundation for tomorrow's business. For our personnel in laboratories, engineering departments and test facilities throughout McDonnell Douglas, creativity in the arts and sciences of aerospace is a way of life. Examples of this include our development of the EROS aircraft collision-avoidance system and our continuing work on vertical and short takeoff and landing (V/STOL) aircraft for both commercial and military markets.

On 22 December 1969, McDonnell Douglas and Hawker Siddeley Aviation Ltd. announced an agreement under which the Hawker Siddeley Harrier V/STOL attack fighter could be built in this country by McDonnell Douglas. The U. S. Marines have ordered an initial quantity of 12 Harriers, to be built by Hawker Siddeley, for evaluation in an operational environment. If these operations yield favorable re-



sults, there is a reasonable probability that additional numbers of these aircraft would be ordered by the Marines and be built by McDonnell Douglas.

A significant contribution to our success in 1969 was provided by the McDonnell Douglas Finance Corporation (MDFC), which in its first full year of operation earned \$3,435,696. The activities of this wholly owned subsidiary are reported in its own 1969 Annual Report, enclosed herewith, and its operating results are included in McDonnell Douglas Corporation financial statements. Separate reports for parent and subsidiary provide a clearer picture of the financial positions and operating results of

both. (See Notes A and B on page 24 for a fuller explanation of the treatment of MDFC in the MDC report.)

6 July 1969 was the 30th anniversary of the founding of McDonnell Aircraft Corporation in Missouri, and 22 July 1970 will mark 50 years since Douglas Aircraft got its start in California. As McDonnell Douglas Corporation we are barely three years old, but the wealth of our experience and tradition aggregates 80 years. In the same team spirit that has enabled us to meld these heritages so creatively, we will celebrate during 1970 a combined 50th Anniversary Year.

During their 25 July 1969 meeting, held at Long Beach, the Directors of McDonnell Douglas Corporation saw concrete evidence of progress on the DC-10 program. Shown left to right are: Walter F. Burke, Charles R. Able, George S. Roudebush (rear), Sanford N. McDonnell, Harold H. Helm, Dolor P. Murray, David S. Lewis, James S. McDonnell, Donald W. Douglas, Donald W. Douglas Jr., Jackson R. McGowen (rear), William A. McDonnell, Richard L. Jones Jr., George E. Pake (rear), Wellwood E. Beall and William R. Orthwein Jr. (rear).

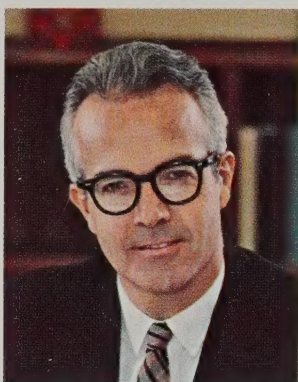


DC-10 DEVELOPMENT FIXTURE  
SECTION B





## **MCDONNELL AIRCRAFT COMPANY**



**SANFORD N. MCDONNELL**  
*President*



**GEORGE S. GRAFF**  
*Vice President-Engineering*

A two-year, all-out effort by McDonnell Aircraft Company (MCAIR) culminated in the announcement by the Air Force on 23 December that MCAIR had been selected to build its new F-15 air superiority fighter. The contract, which gives McDonnell Aircraft Company responsibility for the total F-15 system, ensures that MCAIR will continue as a foremost builder of fighter aircraft in the Free World for many years to come.

The F-15 (artist's concept on cover) is a twin-engine, single-place airplane designed to provide the Air Force with air superiority over current and projected enemy threats. It will have high maneuverability, substantial range and simplicity of operation and maintenance.

The wing design of the F-15 is tailored to achieve maximum maneuverability for its air-to-air combat mission. The airframe will be composed of considerably more of the advanced, lightweight materials, such as titanium and boron composites, than any previous production aircraft.

The F-15 design contains growth potential for even more maneuverability and increased thrust loading to extend its effectiveness well into the 1980s. The aircraft will be reliable and easy to maintain with a design flexibility that will permit its use in other missions such as the two-place trainer version which also is covered in the initial contract. Design and production will be centered in the St. Louis facilities of MCAIR, with assistance being provided by other corporate components and several thousand subcontractors and suppliers located from coast to coast.

Meanwhile, production of the highly successful F-4 Phantom continues, although at a reduced delivery rate. Current U. S. government planning now contemplates that F-4 production will continue at least to the end of 1974 or until the F-15 and the U. S. Navy's F-14A are operationally ready. Nearly 3700 Phantoms had been delivered by the end of 1969, including the last F-4K and F-4M aircraft to the United Kingdom. The British program is being supplanted by a similar program for West Germany, under which 88 RF-4E reconnaissance Phantoms will be provided to West Germany under a U. S. government agreement. The first German Phantom is scheduled to be delivered late this year.

Under approval of the U. S. and Japanese Governments, an agreement was signed in March between MCAIR and Mitsubishi Heavy Industries Ltd. for production of the F-4E Phantom in Japan as the mainstay fighter of the Japanese Self Defense Force. About 30 McDonnell engineering, manufacturing and related support personnel and their families are already in Japan coordinating this effort. MCAIR is building two fly-away aircraft and eight additional sets of complete assemblies here in St. Louis. The remainder of the production and assembly will be done by Mitsubishi in Japan, with some components being supplied from St. Louis.

Cumulative total flying hours for the F-4 Phantom passed the 3 million hour mark during 1969 in worldwide service with the U. S. Air Force, Navy and Marine Corps and the air services of Great Britain, Iran, South Korea and Israel. First deliveries of Phantoms to Israel under a government-to-government agreement were made during 1969.

Since the Phantom remains one of the most effective and versatile fighters in the Free World, studies are continuing in advanced design to modify the F-4 to meet the requirements of specific customers. A low-cost, lightweight version with simple avionics is being proposed for countries with limited facilities and manpower. The results of development programs on high-lift devices, survivability features and improved armament capabilities are also being offered.

The U. S. Air Force Thunderbirds and Navy Blue Angels both transitioned to the Phantom during the past year, marking the first time that both of these



premier flight teams have used the same aircraft. Approximately 13,500,000 spectators saw the two teams in appearances throughout the continental United States, Alaska, Hawaii, Canada, Colombia, Canal Zone, Guatemala and Bermuda during their first season flying the Phantom.

McDonnell Aircraft Company has corporate responsibility for design of the DC-10 wing and management of the wing program. In addition, MCAIR is fabricating the fixed leading edges and control surfaces of the DC-10 wing at St. Louis. Under MCAIR direction, the basic wing structure is being built at Douglas Aircraft Company of Canada (DACAN) and the outboard flaps and wing tips are being produced at the Tulsa Division of Douglas Aircraft Company.

Several significant development and study contracts were received by MCAIR from the Air Force during

1969. One was a contract to build 50 boron-epoxy composite rudders for the F-4 Phantom, the largest quantity order ever awarded for production of boron structures.

Another Air Force contract award gave MCAIR responsibility to develop and test a flight control system more maneuverable and less vulnerable to combat damage than present systems. This program will demonstrate a fly-by-wire system which relays the pilot's inputs to control surfaces by electrical signals instead of by rods or mechanical devices.

Beyond the F-4 and F-15, significant MCAIR engineering emphasis has been directed to advanced aircraft systems concepts having production potential in the 1975-1985 period. MCAIR was awarded study contracts last year from the Naval Air Systems Command, Air Force Systems Command and the National Aeronautics and Space Administration addressing a broad spectrum of aircraft concepts including lightweight, carrier-based fighters, very high performance interceptors and aircraft capable of routine operation in the hypersonic flight regime.

Production of crew modules for the Air Force's F-111 fighter continued during the year. This MCAIR designed and built escape system for the F-111's two-man crew has compiled an excellent record of reliability in operational service. The creative talents of a MCAIR crew escape module design team supported a technical proposal by Boeing for the Strategic Air Command's B-1A advanced bomber.

MCAIR, looking to possible future programs, continued its total system development approach to a STOL transportation system. The company has been providing inputs to Federal, state and local governments, defining the elements of air traffic control, passenger facilities, landing and takeoff requirements and noise regulations to bring about a new transportation system for the short-haul traveler in the congested airline environment.

Model 188 STOL transport takes off from Meigs Field in downtown Chicago during joint MDC-American Airlines systems testing program. This followed similar joint demonstration program with Eastern Airlines.



The U.S. Air Force's Thunderbird air demonstration squadron flies a five-plane wedge formation in F-4E Phantoms (right).

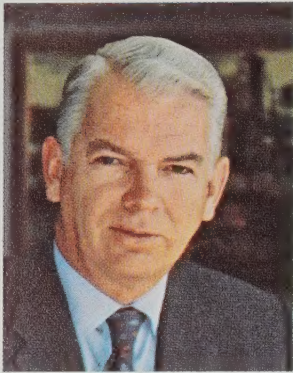








**DOUGLAS AIRCRAFT COMPANY**



**JACKSON R. MCGOWEN**  
*President*



**WELLWOOD E. BEALL**  
*Executive Vice President*

The age of the wide-bodied luxury jet transport has arrived and the Douglas Aircraft Company's entry in that field, the McDonnell Douglas DC-10, made significant advances during 1969 in sales, engineering, production and construction of new facilities.

This tri-jet aircraft, now clearly emerging as the leading transport of the 1970s, is being marketed in an extremely competitive environment. In the face

of this, the company has been successful in obtaining orders and firm options for 204 DC-10s from eleven of the world's airlines, whose needs are expected to account for approximately 35 per cent of the total market during the life of the program.

Airlines still uncommitted in the continuing competition for tri-jet sales offer the strong probability that this proportion will be considerably expanded as new decisions on equipment are made. The company, meanwhile, has an ongoing program solidly based on the strong position held by its customers, which include many of the world's leading airlines.

The various versions of the DC-10 can service short, medium and long range routes and provide convertibility between passenger and cargo configurations, thereby spanning a broad spectrum of commercial airline needs.

To meet the requirements of a still developing market, the design of the intercontinental DC-10 has been modified to extend its maximum range by 500 statute miles. This model will now carry more than

Flight ramp at Long Beach is a scene of bustling activity as DC-8 and DC-9 jetliners get finishing touches before delivery to airline customers at home and abroad.





300 passengers and their baggage 6100 statute miles. Primary modification consists of increasing the wing-span six feet and adding 2800 gallons of fuel capacity.

As 1969 ended, the Douglas Aircraft Company listed on its distinguished roster of DC-10 customers Air Afrique, American Airlines, KLM Royal Dutch Airlines, National Airlines, Northwest Airlines, Overseas National Airways, Scandinavian Airlines System, Swissair, Trans International Airlines, France's Union de Transports Aeriens and United Air Lines.

While the world-wide drive for additional DC-10 customers continues, a carefully planned program to bring this new jetliner from the drawing board to the flight ramp gained momentum at Long Beach.

One of the great assets which the Douglas Aircraft Company has brought to the DC-10 program is the 6000-strong engineering staff which ranks as one of the most experienced in the world. Similarly, in the production effort, the same team which brought about a remarkable efficiency in DC-8 and DC-9 operations now has the responsibility for manufacturing the DC-10.

Other units of the McDonnell Douglas Corporation with major contributing roles in the DC-10 program are the McDonnell Douglas Astronautics Company facility at Santa Monica, Calif., which produces the nose section; the McDonnell Aircraft Company in St. Louis, responsible for design and development of the wing and production of certain control surface components; Douglas Aircraft Company of Canada Ltd. at Toronto, manufacturer of the wing structure, and our Tulsa Division, which produces outboard flaps and wing tips.

In addition many hundreds of subcontractors and suppliers in the United States and abroad are participating in the DC-10 program. The combined efforts of all elements, within and outside McDonnell Douglas, are coming together in a well synchronized operation at Long Beach, where the giant airplane is beginning to assume its final form preparatory to roll-out later this year.

On 13 November the first major component, a nose section, was delivered to Long Beach from Santa Monica. Before the end of February, the first forward, mid and aft sections of the fuselage had been received from the Convair Division of General Dynamics in San Diego. On 1 February, the first



Ready for delivery to United States Navy are these TA-4J Skyhawks, lined up in a hangar at Palmdale. First deliveries of this new version of the advanced jet trainer occurred 6 June.

wing sections arrived from Canada and the two portions were joined immediately to form the huge 155-foot wing. In addition, four flight-qualified CF6-6 engines have been delivered by the General Electric Co. Other major components to arrive in the early weeks of 1970 were the 11-foot tall main landing gear produced by Howmet Corporation in California, and nose gears from Abex Industries of Canada, Ltd.

The flow of major DC-10 structures to Long Beach will increase steadily in the months to come as the great luxury tri-jet moves toward flight status.

To accommodate the new requirements for production of an airplane the size of the DC-10, construction of major facilities to augment existing buildings is well advanced. The new buildings include a 250,000 square foot engineering development center and a 392,000 square foot final assembly building.

While the position of the DC-10 program improved during 1969, the booking of new DC-8 and DC-9 orders was substantially less than had been anticipated. The expected passenger appeal of wide-bodied aircraft such as the DC-10 and the problems of financing faced by the airlines in the tight money market have been important factors in this decrease.

During the year, the company delivered 122 DC-9s and 85 DC-8s, all either on or ahead of contract



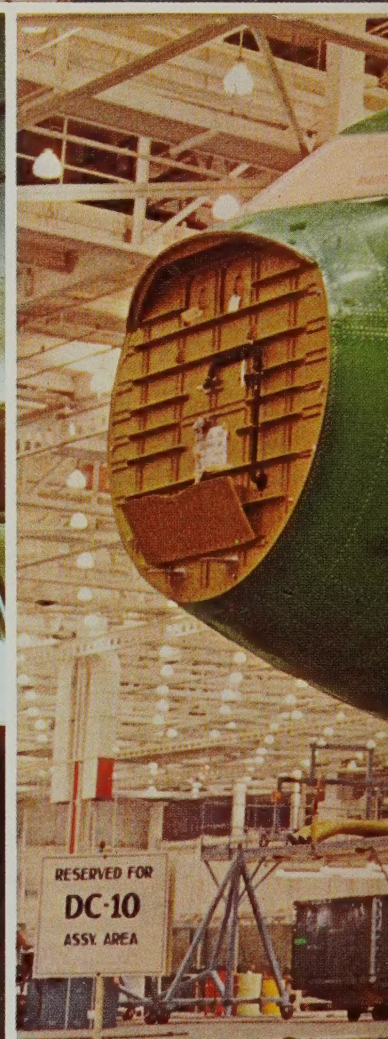
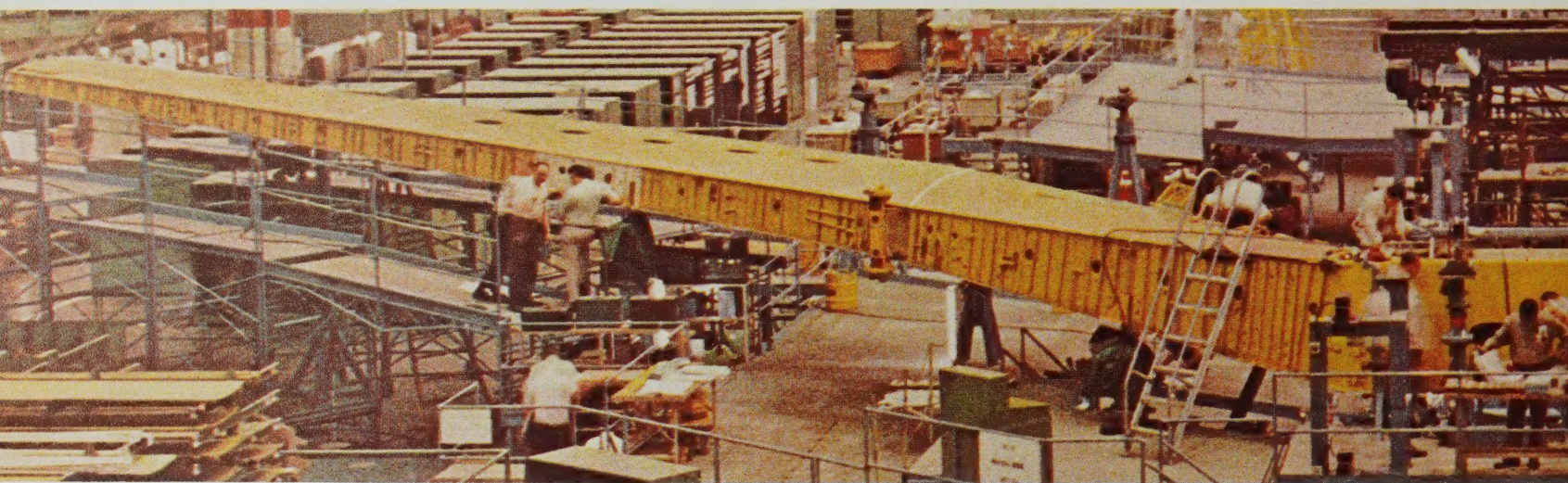
schedule dates. Through 31 December, orders for a total of 623 DC-9s, including 12 C-9A versions, had been received, of which 551 had been delivered. DC-8 orders totaled 547, with 506 delivered.

Delivery milestones during 1969 included the 1000th commercial jet transport, the 500th of the four-engine DC-8 and the 500th of the twin-engine DC-9. Forty-four airlines have ordered the DC-9 and 36 have ordered the DC-8.

One of the company's major activities was preparation and submission of a program definition pro-

posal for the Airborne Warning and Control System (AWACS), based on use of the DC-8 airframe, for the U. S. Air Force. A decision between McDonnell Douglas and the other finalist in the competition is expected in the first quarter of 1970.

Continued life for the long-active Skyhawk program was assured by a Navy order for the improved A-4M single-seat attack model for use by the Marine Corps. While the A-4 has been in production for years, evolutionary improvements in each successive model have kept its combat capabilities abreast of contemporary requirements. More than 2300 Sky-





hawks had been delivered by year's end.

Production of the Air Force C-9A aeromedical airlift transport, called the Nightingale, also continued at Long Beach. The 12th and last of the current order was delivered 31 December 1969. An operational readiness rate of 93.8% and mechanical departure reliability rate of 99.49% during the first year of C-9A service are well above guarantees and are unmatched in Air Force history.

The Tulsa, Oklahoma, Division of the Douglas Aircraft Company was the successful bidder in 1969 for

a \$13 million award for modification of Air Force B-52 bombers. Other such awards involve modification and maintenance of A-1 Skyraiders and B-66 Destroyers. In addition to its manufacturing assignment on the DC-10, Tulsa continues to supply a number of assemblies for the DC-8 and DC-9.

Assembly of the first DC-10 is moving ahead rapidly at the Long Beach plant of Douglas Aircraft Company. Graceful span of the 155-foot wing begins to emerge (below), while forward sections of the fuselage (below right) reveal massiveness of the luxury tri-jet. Interior mockup (lower left) shows spaciousness and comfort of the coach section.







## **MCDONNELL DOUGLAS ASTRONAUTICS COMPANY**



**CHARLES R. ABLE**  
*Chairman*



**WALTER F. BURKE**  
*President*

In a year which brought man's first landing on the moon, major participation in such a tremendous achievement must head the list of noteworthy accomplishments for the McDonnell Douglas Astronautics Company. The Huntington Beach-produced S-IVB—third stage of the Saturn V rocket—placed the Apollo 11 in earth orbit and later, after restart of its mighty rocket engine, hurled the spacecraft into its translunar trajectory.

This faultless performance was a fitting climax to a decade of manned space activity by the McDonnell Douglas Corporation, beginning with the McDonnell Mercury and Gemini spacecraft and continuing with the Douglas-developed S-IVB for the Apollo program. The S-IVB performed perfectly in three other lunar missions in 1969.

Building upon this record, MDAC has become a major competitor for next generation space programs such as the manned space stations and space shuttles of the 1970s and 1980s. Fabrication has begun on the Saturn Workshop for the National Aeronautics and Space Administration (NASA), utilizing an S-IVB for this early version of a space station.

MDAC is managing an ambitious thrust into the future after rallying from the severe blow suffered in cancellation of the Manned Orbiting Laboratory (MOL) in June. Readjustments in personnel and facilities have been necessary and the company's overall capability has been maintained.

One of MDAC's principal objectives will be to win the forthcoming competition for the reusable space shuttle, which NASA plans to develop as the next

major step in the Manned Space Program. This booster/orbiter system is intended to provide low-cost transportation for a variety of future payloads to earth orbit. By employing airline operational concepts, costs of placing vehicles in orbit may be reduced by 90 per cent over those of expendable boosters now in use. In addition, shuttle operational flexibility permits inspection, repair and return to earth of orbiting satellites for modifications. The shuttle is expected to be a major factor in opening the new ocean of space to broad exploitation.

This major development effort requires the coordinated skills with which MDC has successfully led the field in commercial aircraft, launch vehicles, high performance aircraft and manned spacecraft. The combined talents of MDAC, MCAIR and DAC plus major associated companies make our shuttle team a formidable contender in this multi-billion dollar national effort. However, final decision on the eventual winner will be made only after about two more years of intensive study.

MDAC is now one of the two finalists in NASA's competition for development of a manned space station which could reach flight status during the next decade if adequately funded. The company was awarded \$2.9 million in July for an 11-month program to define a 12-man station with a projected operational life of 10 years.

Among existing programs, the Saturn S-IVB at Huntington Beach remains as the most important for the immediate future in view of NASA's announced intention to continue lunar exploration for the next few years and its plans for the Saturn Workshop.

The Saturn Workshop is planned for earth orbit in 1972 in a mission which will provide a technological base for the more advanced manned space station now being studied under contract with NASA. An

Scene in Vertical Assembly Building at Kennedy Space Center shows McDonnell Douglas S-IVB being lowered onto second stage of Saturn V which on 14 November 1969 launched the Apollo 12 astronauts on man's second epic flight to the Moon. The S-IVB engine fired twice during the mission—to achieve orbit about the Earth and to propel the Apollo 12 into its moon-bound trajectory.





UNITED STATES





important new element of this mission will be a solar observatory—called the Apollo Telescope Module—to be attached to the Workshop for one of the prime experiments of the program.

Vital to the operation of the Workshop is the Airlock Module also being developed by MDAC at its St. Louis facility. The module is the nerve center of the Workshop cluster, providing storage and distribution for environmental gases and electrical power and performing numerous other service functions.

MDAC received two contracts totaling \$184,790,000 in 1969 to develop and produce the Workshop and Airlock Module. The contract calls for a second Workshop to serve as a backup vehicle.

A variety of other programs, many of them in existence for years, went forward during 1969. Launch of a new, upgraded version of the Delta on 23 January 1970 signaled the start of a new period of activity for this booster which should assure its production life for some years into the 1970s.

The new Delta, called the Super Six, has six solid propellant rockets clustered around the base of the first stage instead of the three used in earlier versions. During the year a \$57,288,321 contract for Delta production and launch support services was awarded to the company by NASA. At year's end NASA credited Delta with successfully orbiting its payload in 68 of 74 launches.

Thor, now in its 13th year as an Air Force and NASA basic booster, recorded its 300th success as a space launch vehicle in August. Thor is the first stage of the multi-stage Delta booster and can be combined with a variety of upper stages. It has helped place more U. S. satellites in orbit than all other boosters combined.

The year 1969 saw continued development of Spartan, the long range interceptor of the Army's Safeguard ballistic missile defense system. MDAC is responsible for Spartan research and development and production under contracts to Western Electric Company and Bell Telephone Laboratories.

Long tank Delta, with six solid rockets attached to its base, is dramatically illuminated by searchlights at Western Test Range in California. This new version of launch vehicle made its debut 23 January 1970, orbiting NASA's TIROS-M second-generation weather satellite.



Dragon, the Army anti-tank weapon, was funded in 1969 in the additional amount of \$9.8 million for engineering development and production engineering contracts. Now under test, the weapon will be produced at the MDAC Ti-Co plant at Titusville-Cocoa Airport in Florida.

Heavy emphasis is placed by the company on its research and development efforts and this determination to maintain a strong technology base met with marked success in 1969. Active research and development contracts with various private and government agencies now number 145.

One of the most significant scientific developments for MDAC was its choice as one of the few industrial firms to participate in NASA's lunar sample analysis program. Scientists at the space sciences laboratories in Santa Monica are studying luminescence and adhesive characteristics of lunar surface materials brought back by the Apollo 11 astronauts. Lunar samples from Apollo 12 and 13 also will be analyzed at company laboratories.

In the spring of 1970, under a new NASA contract, the company will conduct a test in which four crewmen will live in its space station simulator for 90 days. The contract followed successful completion of a 60-day test in 1968.

Two important studies awarded to MDAC in 1969 will establish the basis for design requirements for future spacecraft programs. One study is to configure a biotechnology laboratory which will be used to conduct medical experiments to determine the qualifications of man for extended space flight. Another study awarded by NASA is intended to develop an integrated scientific program plan for space laboratories.

An experiment by MDAC to measure solar cosmic rays on board the Orbiting Geophysical Observatory was begun in 1969 and data on solar flare radiation is now being returned by telemetry from space for analysis.

MDAC nuclear laboratories have developed a novel and highly efficient means of transporting heat through stainless steel pipes. These devices, called heat pipes, have been installed on a NASA satellite and have been successfully demonstrated in the space environment.

Limited production of small atomic batteries known as Betacel and Isomite began at the Donald W.



A shuttle orbiter gets a ride toward earth orbit on the back of a delta-wing shuttle booster in this drawing of a McDonnell Douglas Astronautics Company concept for the NASA space shuttle program. Both the orbiter, which can carry a 50,000-pound payload, and the 200-foot-tall booster are designed to land on runways like jetliners.

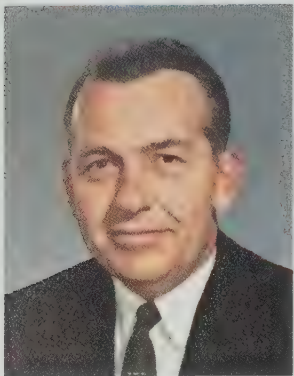
Douglas Laboratories in Richland. These devices are gaining wide attention for applications such as providing power in space and under the sea and for medical implants.

Growing acceptance of the McDonnell Douglas technology applied to our EROS airline collision avoidance system and to an integrated communication, navigation and identification system for military application was evidenced during the past year. During the second half of 1969, our company, along with two competing firms, participated in a flight test program conducted by the Air Transport Association to define an operational collision avoidance system. The test objectives were met and industry-wide collision avoidance system specifications will be presented to the airlines early in 1970.





**DOUGLAS AIRCRAFT COMPANY OF CANADA, LTD.**



**DONALD W. DOUGLAS, JR.**  
*Chairman and President*



**W. LEWIS WHITTIER**  
*Vice President-General Manager*

Douglas Aircraft Company of Canada Ltd. (DACAN), an important member of the corporate-wide DC-10 team, performed effectively in 1969 in its prime assignment of providing wings for the newest of the McDonnell Douglas commercial jetliners.

On 9 January 1969 the Canadian subsidiary cut the first metal on its DC-10 wing manufacturing program

at Toronto. Just 11 months later, on 9 December, the first DC-10 wing was removed from its giant assembly jig. Following a series of pressure tests and installation of wiring and piping it was shipped to Long Beach on 25 January 1970.

In addition to the DC-10 wing manufacturing program, DACAN continues to be the sole source for the complete wings, floors and rear fuselage sections for the DC-9. The 596th DC-9 wing to be produced came off the assembly line at the end of December.

Improvements have been carried out on a broad scale since DACAN exercised its option in July 1968 to purchase the 111-acre Canadian plant. A new building to accommodate DC-10 manufacturing was completed at mid-year, increasing the existing 1.6 million gross square feet of floor space by approximately 138,000 gross square feet.

The massive nature of the DC-10 wing manufacturing operation is evidenced by the six huge wing tank assembly jigs, 100 feet in length, weighing nearly 100 tons and rising to a height of nearly 40 feet. Three levels of work platforms are required so that structural assemblers can work on the entire assembly. There are 88 stringers with an average length of 50 feet in each pair of DC-10 wings.

Employment at DACAN rose from 3400 in January to 6800 in December and is expected to exceed 7100 in 1970 to meet DC-10 assembly line demands. A diverse training program was established to augment the supply of skilled labor. Included in the program were guidance for supervisors, instruction in the delicate task of installing test gauge instrumentation and the training of bench and structural assemblers.

Impact of the far-reaching DC-10 program in Canada alone is indicated by the fact that more than 500 Canadian subcontractors and suppliers from coast to coast are supporting the effort in that country.

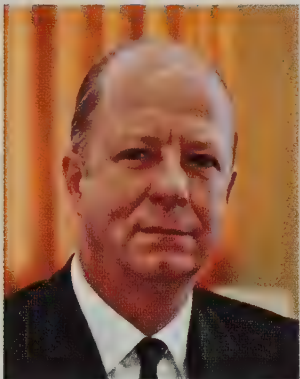
A DC-10 wing box, 90 feet in length and 12 feet wide at its large end, is shown in a huge jig at DACAN's Toronto plant.







## MCDONNELL AUTOMATION COMPANY



**WILLIAM R. ORTHWEIN, JR.**  
*President*



**ROBERT L. HARMON**  
*Vice President-General Manager*

Computer utility services provided by McDonnell Automation Company showed further expansion during the past year. This progress was accomplished by developing a larger market for expanded capabilities in data processing and consulting services for many clients in both government and industry. Sales for the year totaled \$37,212,000, an increase of 11 per cent over 1968.

An expanded data communications network carries information between terminals, such as small computers and teletypewriters in clients' offices in over 300 cities, and our large-scale St. Louis Datadrome™ computers. At the end of 1969, more than 1100 of these terminals were in use, an increase of 70% over a year earlier.

A two-year-old time-sharing computer service, which enables operators in clients' offices throughout the country to feed problems to St. Louis for solution, continued its steady growth through expansion of this network to Los Angeles and Denver. This service is expected to continue its growth in 1970 with further expansion of the network to the east coast.

MCAUTO began providing a new specialty, called computer-aided manufacturing, to some of the nation's largest industries. Many of McDonnell Aircraft Company's technological developments relating to the manufacturing process, along with MCAUTO's capabilities in operations research and mathematical modeling, are being combined to help solve industrial production problems.

A Shareholders Record System, used by the corporation since May to keep historical, operational and statistical data on its 66,000 shareholders, was developed by MCAUTO and is being marketed to other corporations.

To further consolidate the corporation's computer resources, an IBM Model 85 was installed in early 1970. Capable of solving up to 15 separate problems concurrently, it is the most powerful computer available commercially. Its installation will greatly accelerate our efforts to expand computer utility services throughout the North American continent.

The most modern computer systems available process data for clients of McDonnell Automation Company's Computer Utility in St. Louis.







## CREATIVE INDUSTRIAL TEAM



At the end of 1969, the McDonnell Douglas creative industrial team had 107,503 members working in 44 communities in 15 states and Washington D. C., Canada, Germany, Iran, Israel, Johnston Island, Kwajalein and Japan and also included technical representatives distributed worldwide. Office, engineering, laboratory and manufacturing floor area was 28,145,355 gross square feet located on 8,620 acres of land.

**UNION CONTRACTS.** After a five - week strike by the International Association of Machinists and Aerospace Workers at St. Louis, which was settled on 15 February 1969, management-union relationships throughout the corporation have been good. We have 31 separate agreements covering more than 61,000 personnel. Our first major labor contracts to expire will be those which terminate in September 1971 at California locations and in January 1972 at St. Louis. Our final existing labor agreement will expire in October 1972. Negotiations for new labor agreements will begin well in advance of these expiration dates.

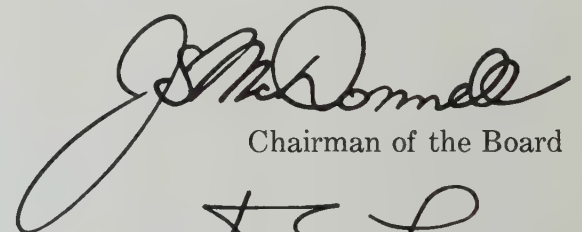
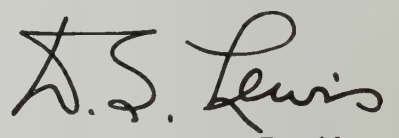
**EDUCATION.** Employees are offered a variety of opportunities to continue their education and broaden their professional and technical skills. Dur-

ing 1969 a total of 44,828 personnel availed themselves of these training opportunities. The College Study Program had an enrollment of 5,092 of which 1,201 were candidates for advanced degrees. During the year there were 16 Doctorate, 8 Professional, 203 Masters, and 82 Bachelor degrees earned and 43 employees received Certificates.

**CHARITABLE CONTRIBUTIONS.** Personnel continued their long tradition of generous support of recognized charities through the McDonnell Personnel Charity Trust in the St. Louis area, and AID (Associated In-Group Donors) in Southern California. A total of \$2,501,137 was contributed to worthy causes through these two programs and by the Tulsa Division, DACAN, Conductron and Hycon personnel under similar programs.

**PERSONNEL WELFARE** programs totaling \$347,467,442 were paid for by the corporation during 1969 (see item 5, page 18). Employees are covered by one of the finest benefit programs in our industry. Our programs include such benefits as savings plans, retirement income, a broad span of group insurance coverages, social security, workmen's compensation insurance, personnel activities, lay-off benefits, vacation, sick leave, holiday pay, military reserve pay and bereavement pay. Under our retirement income plans, for example, 1,378 teammates retired during the year, and total pension payments for 1969 to retired personnel amounted to \$7,594,291. Employees and their dependents received \$52,908,355 under group insurance coverage in payment of 437,743 claims.

By authority of the Board of Directors,

  
Chairman of the Board  
  
President

26 February 1970



## THE 1969 YEAR OF SERVICE TO THE COMMUNITY, THE NATION AND THE WORLD

		% of Sales
1	Sales. . . . .	\$3,023,829,861 100.00%
2	Payroll. . . . .	\$1,196,980,457 39.58%
3	Pay of ten highest paid executives (average per man \$86,630). . . . .	\$866,297 1/35th of 1%
4	The compensation after income taxes of the Chief Executive Officer is equal to the wages (for 48 hours per week) after income taxes of. . . . .	Ten Sweeper Janitors
5	Personnel Welfare including \$127,115,549 in vacation, nurses and doctors salaries, holiday, sick leave, military reserve and bereavement pay which are included in Item 2 . . . . .	\$347,467,442 11.49%
6	All taxes paid by McDonnell Douglas (excluding \$49,887,269 social security taxes which are part of Item 5) . . . . .	\$168,743,124 5.58%
7	Estimated additional taxes paid by personnel out of their pay. . . . .	\$301,160,283 9.96%
8	Estimated taxes paid by McDonnell Douglas and personnel . . . . .	\$469,903,407 15.54%
9	Materials, parts and supplies . . . . .	\$982,182,312 32.48%
10	Rent, heat, light, maintenance, depreciation, plant insurance . . . . .	\$130,600,321 4.32%
11	All other expenses (net) . . . . .	\$207,326,317 6.86%
12	Dividends . . . . .	\$10,985,134 .36%
13	Net earnings . . . . .	\$117,645,437 3.89%
14	Earnings retained for growth (90.66% of net earnings) . . . . .	\$106,660,303 3.53%



DC-8 Super 61 is a picture of grace as it makes nighttime landing in Honolulu.





## FINANCIAL COMMENTS



**DOLOR P. MURRAY**  
Corporate Vice President-Fiscal



**ALBERT H. SMITH, JR.**  
Corporate Vice President-  
Customer Contracts

Sales for the year decreased almost 17%, to \$3,023,829,861 in 1969 from \$3,609,295,227 in 1968. Sales by product lines (in millions of dollars and percentages) are compared in the table below:

	1969	%	1968	%
Commercial aircraft	\$1,389	46.0	\$1,679	46.5
Military aircraft	978	32.3	1,257	34.8
Spacecraft & missiles	545	18.0	551	15.3
Automation, electronics, nucleonics & optics	112	3.7	122	3.4
	<u>\$3,024</u>	<u>100.0</u>	<u>\$3,609</u>	<u>100.0</u>

This decrease in sales occurred primarily because of the decline in delivery rates of DC-8, DC-9 and F-4 airplanes. The chart below pictures the decline in sales, while the future effect of the DC-10 and F-15 programs is indicated by the 1969 increase in backlog.

The earnings chart reflects the decline and subsequent increase in net earnings during the past five-year period and the last chart the growth in shareholders' equity. This growth in equity reflects the result of both profitable operations and a conservative dividend policy, particularly necessary when faced with increasing requirements and a tight money supply nationwide.

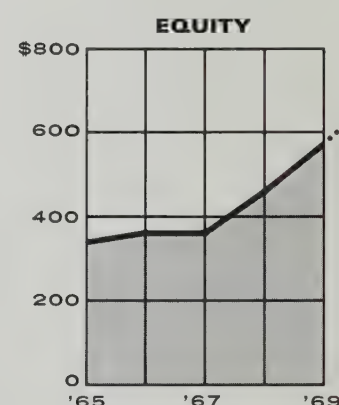
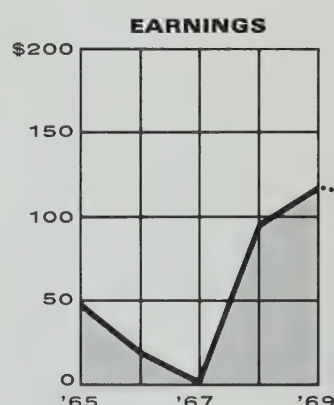
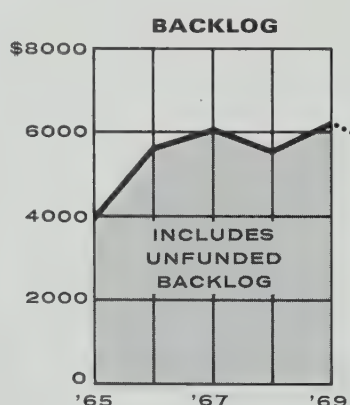
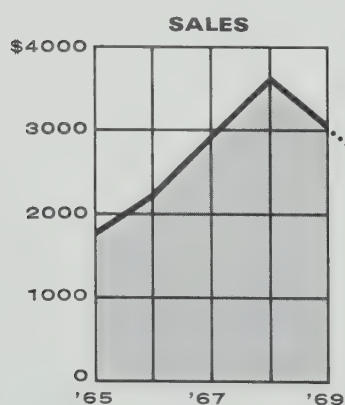
Net earnings were \$117,645,437, an all-time record high for any aerospace company. Earnings reported for the fourth quarter were significantly lower than earlier quarters because of after-tax losses in excess of \$14,000,000 at our Conduction subsidiary in that period.

Earnings per common and common equivalent share were \$4.06 for 1969, up from a comparable \$3.30 per share in 1968. The amounts reported for 1968 (\$3.33 per share) and earlier years have been restated, to include the dilution from stock options. (See page 26, Note K.)

The expiration dates of the Revolving Credit Agreements of MDC and DACAN were extended to 31 Dec. 1970. The credit available thereunder was found to be higher than necessary and was reduced about one-third to \$99,000,000. There were no borrowings under these two agreements at 31 Dec. 1969, although MDFC separately was borrowing \$200,000,000 at that time. Negotiations will be undertaken early in 1970 for the greatly expanded amount of credit needed to finance the build-up of inventories for the DC-10 program.

**Conduction** Corporation, 80.5% of whose common stock is owned by MDC, reported a 1969 after-tax loss of \$21,203,258 on sales of \$59,259,262. This loss, a major unfavorable factor in MDC's record earnings year, resulted from a reevaluation by Conduction of its existing programs as part of an effort to clear the way for a return to profitable operations under new management. Anticipated losses on several programs, some extending through 1971, were taken in 1969. A substantial part of the write-off involves contracts on which Conduction is pressing claims for adjustment, and any recovery will accrue to future earnings. For 1968, Conduction reported an after-tax loss of \$4,869,641 on sales of \$73,022,617.

**Hycon** Mfg. Company, 57.6% of whose common stock is owned by MDC, reported net earnings of \$460,154 for 1969 on sales of \$17,440,224, compared to earnings of \$621,703 in 1968 on sales of \$17,006,089.



charts cover the years 1965 thru 1969 and are in millions of dollars



## CONSOLIDATED STATEMENT OF EARNINGS

YEARS ENDED 31 DECEMBER	1969	1968
<b>INCOME</b>		
Sales, <i>Note C</i> . . . . .	\$3,023,829,861	\$3,609,295,227
Other income . . . . .	37,488,751	21,204,623
	<u>\$3,061,318,612</u>	<u>\$3,630,499,850</u>
<b>COSTS AND EXPENSES</b>		
Costs of products sold, research, development and administrative expenses . . . . .	\$2,809,659,588	\$3,415,868,481
Interest and debt expense . . . . .	10,525,933	21,009,293
United States and foreign income taxes, <i>Note G</i> . . . . .	123,487,654	98,897,715
	<u>\$2,943,673,175</u>	<u>\$3,535,775,489</u>
<b>NET EARNINGS</b>	<u>\$ 117,645,437</u>	<u>\$ 94,724,361</u>
<b>EARNINGS PER COMMON AND COMMON EQUIVALENT SHARE, <i>Note K</i></b>	<u>\$4.06</u>	<u>\$3.30</u>

## CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY

YEARS ENDED 31 DECEMBER 1968 AND 1969	COMMON STOCK	CAPITAL IN EXCESS OF PAR VALUE	EARNINGS RETAINED FOR GROWTH	TREASURY SHARES
<b>SHAREHOLDERS' EQUITY AT 1 JANUARY 1968</b>	\$34,043,339	\$190,856,434	\$144,970,574	(\$5,983,658)
Stock options exercised for 123,869 shares . .	154,836	1,979,601		
Employee savings plan, at approximate market price of 145,500 shares issued . . . . .	181,875	6,950,288		
Conversion of 4¾% Convertible Subordinated Debentures into 7,457 shares . . . . .	9,321	296,126		
Treasury shares (38,519) issued under the Incentive Compensation Plan . . . . .		1,121,896		874,804
Cash dividends declared—\$ .40 a share . . .			(10,873,389)	
Net earnings. . . . .			94,724,361	
<b>SHAREHOLDERS' EQUITY AT 31 DECEMBER 1968</b>	\$34,389,371	\$201,204,345	\$228,821,546	(\$5,108,854)
Stock options exercised for 102,742 shares . .	128,427	1,377,220		
Employee savings plan, at approximate market price of 239,300 shares issued . . . . .	299,125	8,045,612		
Conversion of 4¾% Convertible Subordinated Debentures into 121 shares . . . . .	152	4,807		
Treasury shares (44,481) issued under the Incentive Compensation Plan . . . . .		336,819		1,118,987
Purchase of 105,500 treasury shares . . . . .				(3,608,260)
Cash dividends declared—\$ .40 a share . . .			(10,985,134)	
Net earnings. . . . .			117,645,437	
<b>SHAREHOLDERS' EQUITY AT 31 DECEMBER 1969</b>	<u>\$34,817,075</u>	<u>\$210,968,803</u>	<u>\$335,481,849</u>	<u>(\$7,598,127)</u>

See notes to consolidated financial statements.



# CONSOLIDATED BALANCE SHEET

## ASSETS

	1969	1968
<b>CURRENT ASSETS</b>		
Cash . . . . .	\$ 16,800,213	\$ 5,383,738
Marketable securities . . . . .	1,965,680	
Accounts receivable—U. S. Government . . . . .	96,407,717	114,367,190
Accounts and notes receivable—MDFC, <i>Note B</i> . . . . .	18,431,911	47,786,513
Accounts and notes receivable—commercial . . . . .	55,413,693	30,749,880
Contracts in process and inventories, <i>Note C</i> :		
Commercial products in process . . . . .	\$ 499,808,799	\$ 509,159,283
Government contracts in process . . . . .	372,144,044	443,314,720
Materials and spare parts . . . . .	175,950,549	192,995,045
Progress payments to subcontractors . . . . .	59,050,942	65,764,098
	<u>\$1,106,954,334</u>	<u>\$1,211,233,146</u>
Less applicable progress payments . . . . .	520,527,893	651,783,092
	<u>\$ 586,426,441</u>	<u>\$ 559,450,054</u>
Prepaid expenses . . . . .	17,427,457	19,254,582
<b>TOTAL CURRENT ASSETS</b>	<u>\$ 792,873,112</u>	<u>\$ 776,991,957</u>
<b>OTHER ASSETS</b>		
Investment in and non-current advances to MDFC, <i>Note B</i> . . . . .	\$ 144,025,384	\$ 130,589,688
Aircraft leased to customers . . . . .	24,973,110	32,606,049
Other . . . . .	10,924,305	13,232,366
	<u>\$ 179,922,799</u>	<u>\$ 176,428,103</u>
<b>FACILITIES (at cost), <i>Notes D and E</i></b>		
Land . . . . .	\$ 20,000,963	\$ 17,396,969
Buildings and fixtures . . . . .	228,758,827	206,005,915
Machinery and equipment . . . . .	289,621,237	234,048,849
	<u>\$ 538,381,027</u>	<u>\$ 457,451,733</u>
Less accumulated depreciation . . . . .	261,685,685	236,494,964
	<u>\$ 276,695,342</u>	<u>\$ 220,956,769</u>
<b>DEFERRED CHARGES, <i>Notes B and F</i></b>		
Development costs . . . . .	\$ 200,904,687	\$ 115,159,687
Other . . . . .	57,892,076	44,296,064
	<u>\$ 258,796,763</u>	<u>\$ 159,455,751</u>
	<u><u>\$1,508,288,016</u></u>	<u><u>\$1,333,832,580</u></u>

See notes to consolidated financial statements.



# 31 December 1969 and 1968

## LIABILITIES AND SHAREHOLDERS' EQUITY

	1969	1968
<b>CURRENT LIABILITIES</b>		
Accounts payable and accrued expenses . . . . .	\$ 261,590,764	\$ 283,186,949
Employee compensation . . . . .	93,960,525	83,812,333
Income taxes, <i>Note G</i> . . . . .	32,609,394	55,153,724
Progress payments received from customers in excess of expenditures on contracts . . . . .	110,100,313	97,471,367
Estimated modification, completion, and other contract adjustments, <i>Note C</i> . . . . .	121,036,509	106,163,471
Current maturities of long-term debt . . . . .	13,063,590	12,584,326
<b>TOTAL CURRENT LIABILITIES</b>	<b>\$ 632,361,095</b>	<b>\$ 638,372,170</b>
<b>OTHER LIABILITIES AND RESERVES</b>		
Long-term debt, <i>Note E</i> . . . . .	\$ 145,329,352	\$ 164,862,760
Deferred income taxes, <i>Note G</i> . . . . .	133,395,249	55,516,571
Incentive compensation reserve, <i>Note H</i> . . . . .	20,460,555	12,492,026
Minority shareholders' equity in subsidiaries . . . . .	3,072,165	3,282,645
	<b>\$ 302,257,321</b>	<b>\$ 236,154,002</b>
<b>SHAREHOLDERS' EQUITY, <i>Notes E, H and I</i></b>		
Common Stock, par value, \$1.25 a share:		
Shares authorized: 40,000,000		
Shares issued: 1969—27,853,660 . . . . .	\$ 34,817,075	
1968—27,511,497 . . . . .		\$ 34,389,371
Capital in excess of par value . . . . .	210,968,803	201,204,345
Earnings retained for growth . . . . .	335,481,849	228,821,546
	<b>\$ 581,267,727</b>	<b>\$ 464,415,262</b>
Less cost of treasury shares:		
1969—285,970; 1968—224,951 . . . . .	7,598,127	5,108,854
<b>TOTAL SHAREHOLDERS' EQUITY</b>	<b>\$ 573,669,600</b>	<b>\$ 459,306,408</b>
<b>COMMITMENTS AND CONTINGENT LIABILITIES, <i>Notes H, I, J and L</i></b>	<b>\$1,508,288,016</b>	<b>\$1,333,832,580</b>



# CONSOLIDATED STATEMENT OF WORKING CAPITAL

YEARS ENDED 31 DECEMBER

	1969	1968
<b>WORKING CAPITAL AT BEGINNING OF YEAR . . . . .</b>	<b>\$138,619,787</b>	<b>\$ 69,026,472</b>
<b>ADDITIONS</b>		
Net earnings. . . . .	\$117,645,437	\$ 94,724,361
Less earnings of MDFC. . . . .	3,435,696	589,688
	<u>\$114,209,741</u>	<u>\$ 94,134,673</u>
Depreciation of facilities . . . . .	31,140,072	29,173,233
Depreciation of leased aircraft . . . . .	11,154,496	5,160,689
Amortization of deferred development costs . . . . .	46,237,000	60,627,000
Amortization of cost in excess of book value of subsidiaries . . . . .	1,198,592	1,787,129
Increase in deferred income taxes. . . . .	77,878,678	49,410,734
Proceeds from shares issued under employee option and savings plans	9,850,384	9,266,600
Decrease in long-term receivables. . . . .	2,768,130	96,050,256
Proceeds of long-term debt . . . . .	584,596	20,770,527
Miscellaneous . . . . .	985,778	(252,379)
	<u>\$296,007,467</u>	<u>\$366,128,462</u>
	<u>\$434,627,254</u>	<u>\$435,154,934</u>
<b>DEDUCTIONS</b>		
Cash dividends declared. . . . .	\$ 10,985,134	\$ 10,873,389
Facilities acquired . . . . .	86,878,645	38,997,911
Long-term debt paid or retired. . . . .	20,118,004	17,281,602
Development costs deferred, <i>Note F</i> . . . . .	131,982,000	60,220,000
Aircraft leased to customers . . . . .	3,521,557	10,842,095
Treasury shares purchased. . . . .	3,608,260	
Investment in and non-current advances to MDFC. . . . .	10,000,000	130,000,000
Deferred discount . . . . .	7,021,637	28,320,150
	<u>\$274,115,237</u>	<u>\$296,535,147</u>
<b>WORKING CAPITAL AT END OF YEAR</b>	<u><u>\$160,512,017</u></u>	<u><u>\$138,619,787</u></u>

See notes to consolidated financial statements.

## INDEPENDENT PUBLIC ACCOUNTANTS' REPORT

Shareholders and Board of Directors  
McDonnell Douglas Corporation  
St. Louis, Missouri

We have examined the consolidated financial statements of McDonnell Douglas Corporation and consolidated subsidiaries for the year ended 31 December 1969. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. It is not the general practice of the United States Government to confirm amounts owing by it, consequently, as to the accuracy of receivables from the Government, we satisfied ourselves by other auditing procedures. We previously made a similar examination of the financial statements for the preceding year.

In our opinion, subject to final determination of the litigation and contingent liabilities described in Note L to the consolidated financial statements, the accompanying balance sheet, statements of earnings, shareholders' equity, and working capital present fairly the consolidated financial position of McDonnell Douglas Corporation and consolidated subsidiaries at 31 December 1969, the consolidated results of their operations, the changes in capital accounts, and changes in working capital for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

St. Louis, Missouri  
28 January 1970

*Ernst & Ernst*



# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

31 DECEMBER 1969

## A. PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of all subsidiaries, except McDonnell Douglas Finance Corporation (MDFC), see Note B, and an immaterial foreign subsidiary, and for comparative purposes the amounts shown for 1968 have been restated on this same basis. In consolidation, significant intercompany items and transactions have been eliminated and the accounts of the Canadian subsidiary have been translated to U. S. dollars at appropriate exchange rates.

## B. INVESTMENT IN AND ADVANCES TO FINANCE SUBSIDIARY

The investment in McDonnell Douglas Finance Corporation (MDFC), a wholly owned finance subsidiary, is carried at the Corporation's equity in its net assets of \$84,025,384, and the advances are represented by subordinated notes of \$60,000,000. Earnings or losses of this subsidiary are included in consolidated net earnings currently; accordingly, consolidation would have no effect on consolidated net earnings or shareholders' equity, as reported. The condensed financial data presented below have been summarized from the audited financial statements of McDonnell Douglas Finance Corporation:

	31 DEC. 1969	31 DEC. 1968
Notes and lease receivables—net	\$339,011,230	\$178,013,460
Cash	1,591,713	727,000
Residual value of leased aircraft	21,091,230	902,213
Other assets	60,039	
Total assets	<u>\$361,754,212</u>	<u>\$179,642,673</u>
Accounts and notes payable to parent	\$ 18,431,911	\$ 47,769,327
Other notes payable	173,000,000	
Accounts payable and accrued expenses	1,685,354	373,118
Deferred income tax items	24,611,563	910,540
Subordinated notes payable to parent	60,000,000	50,000,000
Shareholder's equity	84,025,384	80,589,688
Total liabilities and equity	<u>\$361,754,212</u>	<u>\$179,642,673</u>
	TWELVE MONTHS 1969	TWO MONTHS 1968
Operating income	\$ 26,210,205	\$ 2,842,611
Interest and debt expense	18,035,478	1,407,787
Net earnings	<u>3,435,696</u>	<u>589,688</u>

This subsidiary began operation 1 November 1968 with the exchange of approximately \$190,000,000 of long-term notes receivable of the Corporation for equity securities and debt. Notes receivable are discounted (where necessary) to approximate market price upon transfer to this subsidiary. The discount is included in other deferred charges in the balance sheet of the Corporation and charged against earnings on the same basis as this subsidiary records the income therefrom; consequently, this procedure has had no effect upon consolidated net earnings. The unamortized balance of this discount at 31 December 1969 was \$35,341,787, compared with \$28,320,150 at 31 December 1968.

## C. CONTRACTS IN PROCESS AND INVENTORIES

Contracts in process and inventories include certain items to which the U. S. Government held title by reason of contract provisions.

Orders in process for commercial aircraft (including military versions) and certain other commercial products were stated on the basis of production costs incurred less the costs allocated to delivered items, reduced (where applicable) to realizable market after giving effect to the estimated costs to complete each order or contract. While executed orders at 31 December 1969 for the DC-10 aircraft were not adequate to permit recovery of all estimated costs of the program, reduction to market was not considered appropriate as it is expected that additional orders will be received which will eventually permit recovery of all DC-10 program costs. Costs for the DC-8 and DC-9 commercial aircraft programs were determined by specific units; but for other products (to include the DC-10 when deliveries are made), costs were computed as an average cost for each unit based upon the estimated total cost of each contract or program.

Government contracts in process were primarily accounted for on a percentage-of-completion method wherein costs (including general and administrative expenses) and estimated earnings were deemed sales as the work was performed, and the amount stated for each contract represented the accumulated costs plus estimated earnings, less amounts billed to the customer.

Certain contracts contain incentive provisions which provide increased or decreased earnings based upon performance in relation to established targets. Incentives based upon cost performance were recorded currently, and other incentives when the amounts could reasonably be determined. As most work is performed under long-term contracts, adjustments of costs and earnings may be made during and after completion of the contracts; therefore, earnings recorded in the current year may include adjustments applicable to sales recorded in prior years.

Materials and spare parts were stated at the lower of cost (priced generally on a moving average method) or market.

## D. FACILITIES

Facilities are carried at cost and depreciated over their estimated useful life. Depreciation was computed primarily on the straight-line method for facilities acquired prior to 1 January 1954, and on the sum-of-the-years digits method and double-declining balance method for a substantial portion of depreciable facilities acquired subsequently.

## E. LONG-TERM DEBT

The long-term debt outstanding is detailed below:

	31 DEC. 1969	31 DEC. 1968
4¾% Convertible Subordinated Debentures	\$ 74,562,000	\$ 74,567,000
5% Sinking Fund Debentures	26,994,000	33,735,000
Space Center Secured Notes	27,859,497	29,373,534
Other	28,977,445	39,771,552
	<u>\$158,392,942</u>	<u>\$177,447,086</u>
Less current maturities	13,063,590	12,584,326
	<u>\$145,329,352</u>	<u>\$164,862,760</u>



The 4¾% Convertible Subordinated Debentures, dated 1 July 1966 and due 1 July 1991, were issued by Douglas Aircraft Company, Inc. The indenture provides for retirement of a minimum (on a cumulative basis) of \$4,285,000 of these Debentures annually, beginning in 1977, through conversion, purchase and cancellation, or operation of a sinking fund. The Debentures are callable at any time (but at a premium to 30 June 1985) and are convertible into the Corporation's Common Stock. The conversion price and shares reserved for conversion are subject to adjustment in accordance with anti-dilution provisions of the indenture. At 31 December 1969, 1,806,695 shares of unissued Common Stock were reserved for conversion at the rate of one share for each \$41.27 principal amount of Debentures.

The 5% Sinking Fund Debentures, dated 1 April 1958 and due 1 April 1978, were issued by Douglas Aircraft Company, Inc., and require sinking fund payments of \$3,750,000 annually on 31 March. The 1969 sinking fund requirement was fulfilled by the purchase of Debentures in the open market in 1968, and at 31 December 1969 the 1970 requirement had been similarly fulfilled. In addition, \$3,006,000 of the 1971 requirement had also been retired.

The Space Center Secured Notes, issued by Douglas Aircraft Company, Inc., in 1963 and 1965, consist of 5½% Notes (\$18,247,776) due 1984, and 5¼% Notes (\$9,611,721) due 1986, which are payable in annual amounts of \$1,877,513 and \$891,667, respectively, including interest. The Notes were secured by indentures of mortgage and deed of trust on the Corporation's interest in certain land and buildings having a carrying value of \$27,900,000.

Other long-term debt consisted of various notes and lease-purchase obligations with interest rates from a minimum of 3¾% to a maximum of 8¼%. Facilities having a carrying value of \$15,700,000 were mortgaged and trade receivables aggregating \$8,300,000 were assigned as collateral for certain of these agreements.

The provisions of the Corporation's Revolving Credit Agreement were more restrictive than those of the long-term debt agreements with respect to limitations on cash dividends and other stock payments. At 31 December 1969, \$83,999,572 was available for cash dividends and other stock payments (after deducting the dividend payable 5 January 1970).

## F. RESEARCH AND DEVELOPMENT

All research and development costs have been deducted when incurred for income tax purposes. Development costs of commercial aircraft programs (excluding estimated portion obsoleted by subsequent redesign) have been deferred for financial accounting purposes, while research plus other development costs have been charged to expense. Amortization of deferred development was based upon the anticipated quantities of aircraft to be produced under each program, and has been charged to earnings concurrently with delivery of the applicable aircraft.

## G. INCOME TAXES

United States and foreign income taxes were computed at current tax rates on reported earnings, adjusted for investment credits and items that have permanent differences in their treatment for tax purposes. Investment credits have been recorded by an adjustment of income taxes in the year of

acquisition of the applicable property, except for credits arising from tooling and leased aircraft, which have been recorded ratably as applicable aircraft were delivered, or over the various lease periods.

Of the United States and foreign income taxes shown in the consolidated statement of earnings, approximately \$52,400,000 was paid or is payable for 1969 and the balance was reflected as an increase in deferred income taxes. The aggregate income taxes deferred at 31 December 1969 amounted to \$133,395,249 primarily related to the tax treatment of development costs (see Note F).

## H. INCENTIVE COMPENSATION PLANS

Incentive Compensation Plans provide for incentive awards to officers and key employees in cash, shares of common stock and options to purchase shares of common stock. The current year's addition to the Reserve, \$10,683,042, was based upon a percentage of the net earnings as defined in the Plan.

At 31 December 1969, the Reserve for the Corporation's Plan consisted of unpaid cash awards of \$130,587, unpaid share awards of 15,541 shares at an award value of \$546,144, contingent share awards for 236,991 shares at an award value of \$8,349,740 (which will be issued only if the related stock options are not exercised), and \$11,360,876 for awards to be granted. In addition, the Reserve includes \$73,208 applicable to subsidiaries' Plans.

The following table summarizes the number of shares involved in transactions relating to stock options under the Plan in 1969:

	Available For Awards Of Options	Options Out- standing	Total
Balances, 1 January 1969	1,230,024	553,790	1,783,814
Granted	(507,332)	507,332	
Exercised		(102,742)	(102,742)
Cancelled	10,756	(10,492)	264
Balances, 31 December 1969	733,448	947,888	1,681,336

It is expected that authorized but unissued shares will be issued upon the exercise of options which have been awarded and which may be awarded in the future. There are 1,681,336 authorized and unissued shares reserved for such purposes. However, treasury shares could be issued upon exercise of options.

Options outstanding at 31 December 1969 are presented below by date of award, with the number of shares and option prices per share appropriately adjusted to reflect stock splits and dividends:

Award Date	Number Of Shares	Option Price Per Share	Aggregate Price
12 August 1962	28,875	\$ 9.798718	\$ 282,938
29 August 1963	38,933	10.986967	427,756
31 August 1965	72,156	20.200893	1,457,616
30 August 1966	102,566	22.767857	2,335,208
28 April 1967	124,598	38.250	4,765,873
19 July 1968	82,480	51.125	4,216,790
11 March 1969	489,600	40.00	19,584,000
9 April 1969	8,680	37.625	326,585
	947,888		\$33,396,766



Under Section 422 of the Internal Revenue Code, an employee may not exercise his option if he has a previously awarded option under the Plan which is exercisable at a higher price and which has not expired by its terms.

#### I. SAVINGS PLANS

The voluntary savings plans provide that the Corporation contribute to a trustee amounts equal to certain percentages of the amounts saved by employees. These plans had been in effect at Douglas pre-merger and, with minor changes, were extended to all personnel of the Corporation, beginning 18 April 1969. Contributions may be made in cash; however, in the case of the salaried savings plan, certain contributions may be made in shares of the Corporation at the closing market price on the date of issue. Contributions during the year aggregated \$22,204,109, of which \$8,344,737 was the market price of the 239,300 shares contributed. The future annual costs of the plans are indeterminate because of the dependence upon employee compensation and participation. At 31 December 1969, there were 613,600 shares of Common Stock reserved for future issuance under the Plan.

#### J. RETIREMENT PLANS

The Corporation and its subsidiaries have several pension plans covering substantially all of their employees. The total pension expense for the period was \$82,936,043, which includes, as to certain of the plans, amortization of past service costs through 1975 (an original period of twenty years).

The Corporation's policy is to fund pension cost accrued. The actuarially computed value of vested benefits for one of the plans as of 30 November 1969 exceeded the pension fund assets by approximately \$43,000,000.

#### K. EARNINGS PER COMMON AND COMMON EQUIVALENT SHARE

Earnings per common and common equivalent share were computed by adjusting net earnings for the after-tax interest and debt expense applicable to the 4¾% Convertible Subordinated Debentures and dividing that amount by the weighted average number of common and common equivalent shares outstanding during the year, as shown in the following table:

	1969	1968
<b>PRO FORMA EARNINGS</b>		
Net earnings	\$117,645,437	\$94,724,361
Adjustment for interest and debt expense, less applicable income taxes	1,700,081	1,703,185
	<u>\$119,345,518</u>	<u>\$96,427,546</u>
<b>PRO FORMA SHARES</b>		
Outstanding	27,445,867	27,153,570
Issuable upon conversion of the 4¾% debentures	1,806,700	1,810,499
Net increase upon exercise of stock options	135,191	274,607
	<u>29,387,758</u>	<u>29,238,676</u>
<b>PER SHARE</b>	<u>\$4.06</u>	<u>\$3.30</u>

The net increase in shares upon the exercise of stock options shown above assumes the exercise of all options with a price less than the average market price and use of the proceeds to purchase shares at the average market price during the year.

#### L. COMMITMENTS AND CONTINGENT LIABILITIES

The marketing of commercial aircraft at times will result in agreements to provide or guarantee long-term financing of some portion of the delivery price of aircraft or to guarantee lease payments. At 31 December 1969, such contingent liabilities related to delivered or leased aircraft amounted to \$104,400,000 and those related to ordered but undelivered aircraft, \$115,300,000, and those related to aircraft for which firm orders have not been received, \$108,900,000; for a total of \$328,600,000.

The aggregate plant and equipment rental obligations of the Corporation and its consolidated subsidiaries under long-term leases in effect at 31 December 1969 amounted to approximately \$35,900,000, of which \$11,300,000 was payable within a year. Such amounts exclude rentals under leases terminable within one year and a long-term lease with the U. S. Government for which the annual rental is on a graduated basis, with no fixed minimum.

The Corporation has made a commitment of approximately \$19,800,000 to purchase a presently-occupied plant, with the property to be pledged as collateral under a related ten-year, 6% financing agreement.

Prior to the merger of Douglas and McDonnell in 1967, fourteen lawsuits were filed against Douglas Aircraft Company, Inc. (and in some instances its officers, directors and others) on account of losses suffered by purchasers of Douglas securities. Since the merger, seven additional similar suits have been filed against the Corporation. Some suits purport to be class actions on behalf of all purchasers of Douglas securities during various time periods, and other suits purport to be derivative actions brought against the directors and others on behalf of the Corporation. The Corporation has filed answers denying the material allegations of each complaint and alleging in addition certain affirmative defenses. The Corporation believes that the denials and defenses are valid, but a contrary determination by a court could result in substantial liability to the Corporation.

The Corporation is also defendant in other civil actions, the largest of which asks for \$15,600,000. In the opinion of the corporate counsel these other civil actions are either without merit or will not result in a substantial loss to the Corporation.

Renegotiation of business performed by McDonnell Aircraft Corporation has been concluded through 30 June 1964 and for Douglas Aircraft Company, Inc. through 30 November 1965. The Corporation has received notice of a determination by the Renegotiation Board that McDonnell had excessive profits of \$4,042,115 (after federal and state income tax credits) for the fiscal year ended 30 June 1965. A petition has been filed with the Tax Court disputing the determination of the Board. The Corporation cannot predict the outcome of this renegotiation proceeding nor those for other unsettled years and, therefore, no provision has been made for renegotiation refunds.



# TEN YEAR CONSOLIDATED FINANCIAL SUMMARY

## YEARS ENDED 31 DECEMBER

1969

1968

1967

### SALES, EARNINGS AND DIVIDENDS

1	Sales . . . . .	\$3,023,829,861	\$3,609,295,227	\$2,933,753,157
2	Earnings (loss) before income taxes . . . . .	\$ 241,133,091	\$ 193,622,076	\$ (8,570,947)
3	United States and foreign income taxes (credits) . . . . .	\$ 123,487,654	\$ 98,897,715	\$ (9,463,998)
4	Net earnings (loss) . . . . .	\$ 117,645,437	\$ 94,724,361	\$ 893,051
5	as % of sales . . . . .	3.89%	2.62%	0.03%
6	as % of shareholders' equity at beginning of year . . . . .	25.61%	26.03%	0.24%
7	Earnings per share . . . . .	\$ 4.06	\$ 3.30	\$ 0.03
8	Cash dividends declared . . . . .	\$ 10,985,134	\$ 10,873,389	\$ 9,676,974
9	per share (on average shares outstanding) . . . . .	\$ 0.40	\$ 0.40	\$ 0.36

### FINANCIAL POSITION ON 31 DECEMBER

10	Current assets . . . . .	\$ 792,873,112	\$ 776,991,957	\$ 892,047,039
11	Current liabilities . . . . .	\$ 632,361,095	\$ 638,372,170	\$ 823,020,567
12	Working capital . . . . .	\$ 160,512,017	\$ 138,619,787	\$ 69,026,472
13	Other assets . . . . .	\$ 179,922,799	\$ 176,428,103	\$ 135,659,536
14	Facilities (net) . . . . .	\$ 276,695,342	\$ 220,956,769	\$ 211,132,092
15	Deferred charges . . . . .	\$ 258,796,763	\$ 159,455,751	\$ 127,023,196
16	Total assets less current liabilities . . . . .	\$ 875,926,921	\$ 695,460,410	\$ 542,841,296
17	Long term debt . . . . .	\$ 145,329,352	\$ 164,862,760	\$ 161,373,835
18	Deferred income taxes . . . . .	\$ 133,395,249	\$ 55,516,571	\$ 6,105,837
19	Incentive compensation reserve . . . . .	\$ 20,460,555	\$ 12,492,026	\$ 7,476,343
20	Minority shareholders' equity in subsidiaries . . . . .	\$ 3,072,165	\$ 3,282,645	\$ 3,998,592
21	Shareholders' equity . . . . .	\$ 573,669,600	\$ 459,306,408	\$ 363,886,689
22	per share outstanding on 31 December . . . . .	\$ 20.81	\$ 16.83	\$ 13.49

### GENERAL INFORMATION

23	Expenditures for facilities . . . . .	\$ 86,878,645	\$ 38,997,911	\$ 44,479,656
24	Depreciation, including leased aircraft . . . . .	\$ 42,294,568	\$ 34,333,922	\$ 34,024,434
25	Floor area on 31 December, gross square feet . . . . .	28,145,355	26,890,904	26,444,417
26	Shares outstanding on 31 December . . . . .	27,567,690	27,286,546	26,971,201
27	Shareholders of record on 31 December . . . . .	66,057	53,797	58,751
28	Personnel on 31 December . . . . .	107,503	124,740	140,050
29	Payroll . . . . .	\$1,196,980,457	\$1,229,358,164	\$1,214,146,842
30	Backlog on 31 December* . . . . .	\$2,588,184,843	\$3,579,127,403	\$4,162,326,051

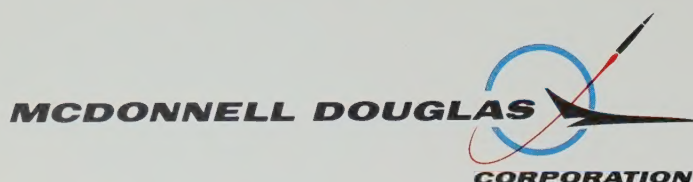
The McDonnell Douglas merger on 28 April 1967 was treated as a "pooling of interests" for accounting purposes, and the data shown above have been restated as if the companies and their subsidiaries had been merged throughout this period, and significant intercompany items and transactions have been eliminated. All share data have been retroactively adjusted to reflect stock splits and dividends.

\*Backlog excludes Government orders not yet funded to the Corporation and orders being negotiated as continuations of authorized programs, which on 31 December 1969 amounted to approximately \$3,597,000,000 and which on 31 December 1968 amounted to approximately \$1,976,000,000.



1966	1965	1964	1963	1962	1961	1960	
\$2,239,368,897	\$1,761,617,325	\$1,576,204,804	\$1,391,094,049	\$1,226,586,128	\$1,115,493,687	\$1,556,659,258	1
\$ 33,835,724	\$ 90,447,286	\$ 79,478,149	\$ 67,660,255	\$ 52,916,967	\$ 34,716,253	\$ (7,139,087)	2
\$ 15,580,457	\$ 41,728,726	\$ 38,618,302	\$ 34,836,564	\$ 26,541,500	\$ 17,165,000	\$ (2,105,990)	3
\$ 18,255,267	\$ 48,718,560	\$ 40,859,847	\$ 32,823,691	\$ 26,375,467	\$ 17,551,253	\$ (5,033,097)	4
0.82%	2.77%	2.59%	2.36%	2.15%	1.57%	(0.32%)	5
5.36%	16.58%	15.97%	14.53%	13.05%	9.36%	(2.57%)	6
\$ 0.68	\$ 1.81	\$ 1.55	\$ 1.26	\$ 1.02	\$ 0.69	\$ (0.20)	7
\$ 9,836,605	\$ 7,465,449	\$ 4,145,014	\$ 3,599,807	\$ 3,463,558	\$ 3,419,524	\$ 2,978,612	8
\$ 0.37	\$ 0.29	\$ 0.16	\$ 0.14	\$ 0.14	\$ 0.13	\$ 0.12	9
\$ 807,961,867	\$ 610,132,366	\$ 447,255,310	\$ 422,432,746	\$ 402,878,951	\$ 352,269,913	\$ 426,188,712	10
\$ 657,043,744	\$ 388,976,750	\$ 234,272,941	\$ 230,257,866	\$ 199,573,332	\$ 156,779,725	\$ 259,144,243	11
\$ 150,918,123	\$ 221,155,616	\$ 212,982,369	\$ 192,174,880	\$ 203,305,619	\$ 195,490,188	\$ 167,044,469	12
\$ 80,088,703	\$ 64,789,665	\$ 49,173,119	\$ 40,802,519	\$ 25,453,910	\$ 23,059,013	\$ 32,332,148	13
\$ 193,892,670	\$ 145,198,986	\$ 137,209,962	\$ 130,928,991	\$ 93,353,129	\$ 83,817,468	\$ 81,720,063	14
\$ 145,132,342	\$ 84,221,963	\$ 36,442,404	\$ 11,077,193	\$ 1,941,975	\$ 451,106	\$ 114,597	15
\$ 570,031,838	\$ 515,366,230	\$ 435,807,854	\$ 374,983,583	\$ 324,054,633	\$ 302,817,775	\$ 281,211,277	16
\$ 171,377,729	\$ 128,500,173	\$ 121,421,469	\$ 109,426,768	\$ 91,895,295	\$ 96,220,935	\$ 87,900,000	17
\$ 21,057,208	\$ 39,682,846	\$ 15,487,554	\$ 6,934,764	\$ 4,515,778	\$ 3,221,321	\$ 4,807,429	18
\$ 9,010,635	\$ 5,789,681	\$ 4,477,891	\$ 2,744,316	\$ 1,810,894	\$ 1,324,265	\$ 953,783	19
\$ 4,014,906	\$ 918,325	\$ 553,682	\$ —	\$ —	\$ —	\$ —	20
\$ 364,571,360	\$ 340,475,205	\$ 293,867,258	\$ 255,877,735	\$ 225,832,666	\$ 202,051,254	\$ 187,550,065	21
\$ 13.70	\$ 12.89	\$ 11.31	\$ 9.90	\$ 8.78	\$ 7.93	\$ 7.40	22
\$ 70,781,955	\$ 25,734,696	\$ 26,124,982	\$ 53,349,547	\$ 25,659,244	\$ 22,868,838	\$ 8,821,060	23
\$ 28,109,681	\$ 23,327,554	\$ 22,326,206	\$ 16,813,547	\$ 14,909,442	\$ 19,584,107	\$ 20,420,385	24
25,502,640	23,683,729	21,497,726	21,626,912	19,217,600	21,034,070	21,968,127	25
26,617,418	26,411,318	25,992,658	25,853,963	25,713,949	25,464,518	25,346,040	26
48,068	36,098	31,415	30,071	31,036	31,550	30,412	27
126,125	101,053	78,639	76,350	70,384	60,224	67,848	28
\$1,045,041,023	\$ 767,381,155	\$ 621,218,183	\$ 541,436,382	\$ 484,971,651	\$ 424,638,947	\$ 533,747,449	29
\$4,284,356,360	\$3,287,622,769	\$1,894,735,893	\$1,470,208,202	\$1,024,299,960	\$1,105,177,822	\$1,259,065,261	30





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- WALTER F. BURKE, Corporate Vice President
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\*Member of Executive Committee of Board of Directors

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 HENRY W. WEIMANN, Corporate Assistant Treasurer

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ROBERT F. CANADAY, Vice President - Military Systems Marketing  
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### MCDONNELL AIRCRAFT COMPANY

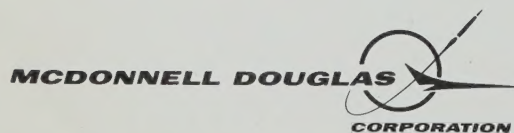
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JOHN F. YARDLEY, Vice President - Deputy General Manager East  
JOHN F. ALDRIDGE, Vice President - Consultant



*The Air Force's F-15 air superiority fighter, shown in an artist's concept, is a twin-engine, single-place aircraft designed for superior performance in air-to-air combat, with high maneuverability, long range and simplicity of operation and maintenance. The F-15 contract was awarded to McDonnell Aircraft Company on 23 December 1969.*



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